## PATENT COOPERATION TREATY

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference 25519 WO				FOR FURTHER ACTION		See Form PCT/IPEA/416						
International application No.				International filing d	ate (day/month/year)	Priority date (day/month/year)						
PCT/EP2004/004703				04.05.200	)4	05.05.2003						
	International Patent Classification (IPC) or national classification and IPC											
Applicant												
SÜDZUCKER AKTIENGESELLSCHAFT MANNHEIM/OCHSENFURT												
1.	1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.											
2.	This F	REPORT c	onsists of a total of	4	sheets, includin	g this cover sheet.						
3.	This r	eport is als	o accompanied by Al	NNEXES, comprising	:							
	a. D	(501)	to the applicant and	to the Intermedian of B	ureau) a total of 10							
	a. K	→ (sent				sheets, as follows:						
	sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).											
	sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental											
Box.												
b (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))												
	. containing a sequence listing and/or tables											
related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (Section 802 of the Administrative Instructions).												
4. This report contains indications relating to the following items:												
	$\boxtimes$	Box No.	I Basis of the	report								
		Box No.	II Priority									
		Box No.	III Non-establis	shment of opinion witl	h regard to novelty, invent	ive step and industrial applicability						
		Box No.	IV Lack of unit	y of invention								
Box No. V  Reasoned statement under Article 35(2) with regard to novelty, invectations and explanations supporting such statement						lty. inventive step or industrial applicability:						
		Box No.	VI Certain docu	aments cited								
Box No. VII Certain defects in the international application												
Box No. VIII Certain observations on the international application												
Date of submission of the demand  Date of completion of this report												
					Date of completion of th	is report						
Name and mailing address of the IPEA/EP					And a day 1 co							
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Translation

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/004703

Box	No. I		Basis of the report		
1.			to the language, this report is based on the international termination that the state of the sta	nal application in the language in	which it was filed, unless otherwise
			port is based on translations from the original langua is the language of a translation furnished for the purp		
	[	i	nternational search (Rule 12.3 and 23.1(b))		
	[	F	publication of the international application (Rule 12.4)	)	
	į	i	nternational preliminary examination (Rule 55.2 and/	or 55.3)	
2.	receiv	ring Of eport):	to the elements of the international application, this fice in response to an invitation under Article 14 ar ernational application as originally filed/furnished		
	$\boxtimes$	the des	scription:		
		pages	1-61		as originally filed/furnished
		pages*		received by this Authority on	
		pages*		received by this Authority on	
	$\boxtimes$	the cla	ims:		
		nos.			as originally filed/furnished
		nos.*		as amended (togethe	r with any statement) under Article 19
		nos.*	1-72	received by this Authority on	24.02.2005 with the letter of 23.02.2005
		nos.*		received by this Authority on	
	$\boxtimes$	the dra	wings:		
		sheets	1/5-5/5		as originally filed/furnished
		sheets*	*		
		sheets	*		
		a sequ	ence listing and/or any related table(s) – see Supplem		isting.
3.	$\Box$	_	nendments have resulted in the cancellation of:		
]			the description, pages		
		$\Box$	the claims, nos.	the second of th	
		$\overline{}$			
	ĺ		the sequence listing (specify):		, M., (1),
			any table(s) related to sequence listing (specify):		
4.			eport has been established as if (some of) the amend	Iments annexed to this report and	listed below had not been made, since
	ш		ave been considered to go beyond the disclosure as fi		
			the description. pages		
		$\overline{}$	the claims, nos.		
		$\overline{}$	the drawings, sheets/figs		
		님	the sequence listing (specify):	1-70	
		Ш	any table(s) related to sequence listing (specify):	·······································	
*	lf iter	m 4 app	olies, some or all of those sheets may be marked "sup	erseded."	

#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/004703

Box			ticle 35(2) with regard to novelty, inventive step or industrial applicability; porting such statement	
1.	Statement			
	Novelty (N)	Claims	1-44, 47-72	YES
		Claims	45, 46	NO
	Inventive step (IS)	Claims	1-22, 47-62	YES
		Claims	23-44, 63-72	NO
	Industrial applicability (IA)	Claims	1-72	YES
		Claims		NO

- 2. Citations and explanations (Rule 70.7)
  - 1. As conceded by the applicant himself in the introductory part of the description, lactobionic acid is a substance which has long been known. The same is true of maltobionic acid. Claims 45 and 46, which are directed to these substances, are therefore not novel.
  - 2. The novelty of the subject matter of the remaining claims of the application is recognised.
  - 3.1 Claims 1 and 47 are inventive in relation to D1 because the applicant could demonstrate that the catalyst claimed therein is more stable than the prior art catalyst, and because this discovery appears to be surprising.
  - 3.2 The process as per claims 23 and 63 is not inventive for the following reasons:

The difference from the prior art document D1 consists only in a change of starting material. However, a person skilled in the art could have recognised at the filing date that the process described in D1 could be analogously applied to disaccharides and other oligosaccharides.

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

- 1. Claims 1 and 23 overlap and define in the overlapping range the claimed invention with different features. Thus, according to claim 1, the use of a metal oxide substrate for the catalyst is necessary to carry out the invention, while claim 23 also admits other substrate materials. The set of claims in its totality is therefore unclear.
- 2. The use claims 47 and 63 should be regarded as process claims and relate to the same subject matter as the actual process claims 1 and 23. However, they do not contain all their features. The set of claims in its totality is thus also unclear for this reason.